

Amendments to the Claims

Please cancel Claims 41-62. Please add claims 63-84. The Claim listing below will replace all prior versions of the claims in the application.

Claim Listing

1-62. (Canceled)

63. (New) A network storage system comprising:

a virtual file system (“VFS”) to store file system information for a single file system, wherein a client of the network storage system accesses the VFS over a network to manage a plurality of files of the single file system, and wherein the client receives a storage resource locator (“SRL”) from the VFS to access a file in the single file system; and

a plurality of storage centers, located in geographically disparate locations from each other and the client and coupled to the client through a wide area, public access network, each of the storage centers for storing a plurality of files for the single file system, wherein the client of the network storage system transmits the SRL to one of the storage centers over the wide area, public access network to download the file over the wide area, public access network, and wherein the SRL includes a public access network address for a storage center to access one of the storage centers over the wide area, public access network and a unique identifier associated with the contents of the file to uniquely identify the file stored at one of the storage centers.

64. (New) The network storage system of claim 63, further comprising a storage port for accessing at a client, the virtual file system and the storage centers, the storage port to translate a client file system request to a file system request including the file identifier to identify the file in the single file system.

65. (New) The network storage system of claim 64, further comprising at least one additional storage port for accessing the virtual file system and the storage centers in the event of a failover condition of the storage port.

66. (New) The network storage system of claim 63, wherein each storage center comprises:
 - a plurality of distributed object storage managers (“DOSMs”) for receiving requests to access the storage center; and
 - a storage cluster, comprising a plurality of intelligent storage nodes, for storing files of the network storage system for serving access requests from the DOSMs, each intelligent node including a processor core and a plurality of storage devices.
67. (New) The network storage system of claim 66, further comprising a multi-cast protocol for maintaining file information at the DOSMs regarding files stored in the intelligent storage node.
68. (New) The network storage system of claim 66, wherein the DOSMs further comprise a data cache for caching at least a subset of files stored in the intelligent node.
69. (New) The network storage system of claim 68, further comprising a load balancing fabric for selecting a DOSM for an access request based on demand to access the storage center, and for caching data for files in high demand in the data caches of the DOSMs.
70. (New) The network storage system of claim 64, further comprising a dynamic failover mechanism for servicing access requests from a disparate storage center in the event that a failure occurs in another one of the storage centers.
71. (New) The network storage system of claim 63, further comprising a content delivery network coupled to the network storage system.
72. (New) The network storage system of claim 63, wherein the file identifier includes a digital fingerprint derived from the contents of the file.
73. (New) A method for storing files in a network storage system, the method comprising:

storing file system information in a virtual file system (“VFS”) for a single file system;

receiving a request from a client at the VFS to access a file in the network storage system;

generating at the VFS, in response to the request from the client, a storage resource locator (“SRL”);

storing a plurality of files for the single file system in a plurality of storage centers, the storage centers located in geographically disparate locations from each other;

coupling the storage centers to the client through a wide area, public access network;

transmitting, from the client to one of the storage centers, over a wide area, public access network, the SRL received from the VFS, wherein the SRL comprises information to access a storage center over the wide area, public access network and comprises a unique file identifier associated with contents of the file to uniquely identify the file stored at one of the storage centers; and

downloading, over the wide area, public access network, the file identified by the SRL from the storage center identified to the client.

74. (New) The method of claim 73, further comprising:

accessing, at a client, the virtual files system and the storage centers using a storage port, the storage port to translate a client file system request to a file system request including the file identifier to identify the file in the single file system.

75. (New) The method of claim 73, further comprising the virtual file system and the storage center in the event of a failover condition of the storage port from at least one additional storage port.

76. (New) The method of claim 73, wherein downloading the file from the storage center comprises;

receiving a request for access to the storage center;

selecting one of a plurality of distributed object storage managers (DOSMs) to service the request; and

accessing an intelligent storage node from the DOSM selected to service the request, each intelligent node including a processor core and a plurality of storage devices.

77. (New) The method of claim 76, further comprising:
 - issuing commands from a multi-cast protocol to maintain file information at the DOSMS requesting files stored in the intelligent storage node.
78. (New) The method of claim 76, further comprising:
 - caching at least a subset of files stored in the intelligent nodes at the DOSMs.
79. (New) The method of claim 76, further comprising:
 - selecting a DOSM for a download request based on demand to access the storage center; and
 - caching data for files in high demand in the DOSMs.
80. (New) The method of claim 73, further comprising:
 - servicing access requests from a disparate storage center in the event that a failure occurs in the storage center.
81. (New) The method of claim 73, further comprising:
 - accessing the storage center from a content delivery network.
82. (New) The method of claim 73, wherein the file identifier includes a digital fingerprint derived from the contents of the file.
83. (New) A network storage system comprising:
 - a virtual file system (“VFS”) for storing file system information for a single file system, wherein a client of the network storage system accesses the VFS over a network

to manage a plurality of files of the single file system, and wherein the client receives a storage resource locator (“SRL”) from the VFS to access a file in the single file system;
and

a storage center, coupled to the client and each other through a wide area, public access network, for storing a plurality of files for the single file system, wherein the client of the network storage system transmits the SRL to the storage center over the public access network to download files over the wide area, public access network, and wherein the SRL comprises information to access the storage center over the wide area, public access network and comprises a unique file identifier associated with the contents of the file to uniquely identify the file stored at the storage center.

84. (New) The network storage system of claim 83, wherein the file identifier includes a digital fingerprint derived from the contents of the file.